41. However, the overall carriage of sports networks (as measured by MVPD household penetration rates and aggregated across all MVPDs) is a function of many more factors than just the year of launch and the license fee. Other factors include the network attributes, such as the programming content, intensity of viewer interest (*i.e.*, how likely are the viewers to switch MVPDs if their MVPD does not carry the network), other difficult-to-quantify characteristics, such as the quality of production, and other terms of carriage. This makes the comparison between penetration rates of different programming channels (for the purposes of an assessment of discrimination claims) highly problematic. All sports networks have some unique elements, and carriage of the networks by MVPDs will depend on various difficult-to-quantify attributes that are specific to the network's programming content. Just because one sports network is widely carried, it does not follow that a different sports network with different content and pricing attributes should have similar MVPD household penetration rates. Because the NFL Network, Versus, and the Golf Channel all carry such different content, direct comparison of Comcast's carriage decisions for the NFL Network, Versus, and the Golf Channel simply because they all carry sports-related content is not a meaningful "apples-to-apples" comparison.

C. License fees

42. A key element of the value proposition (*i.e.*, the MVPD's incremental earnings from carriage of the NFL Network) is the price per subscriber charged by the NFL Network. According to SNL Kagan data, the NFL Network's average license fee in 2007 was [redacted] per month per subscriber served; Dr. Singer presents an average

monthly license fee of [redacted] in his report for the biggest MVPDs offering the NFL Network. For Comcast, the NFL Network license fee includes a 55 cent per month per subscriber surcharge for the eight live regular-season NFL games per year carried by the NFL Network.[35] In contrast, the 2007 average license fees, based on the SNL Kagan data, for Versus and the Golf Channel were [redacted] per month per subscriber, respectively.[36] Thus, the average per subscriber license fee charged by the NFL Network is more than *three times* the average per subscriber license fee for either the Golf Channel or Versus.

43. As shown in Table B, in 2007, the NFL Network's average price of [redacted] per subscriber per month makes it the second most expensive national cable sports network in terms of carriage prices paid by MVPDs. In fact, according to SNL Kagan data, in 2007, there were only three national cable networks – ESPN, TNT, and the Disney Channel – that had a higher average license fee per subscriber than the NFL Network.[37] The NFL Network's average license fee substantially exceeds the average license fee of many networks, such as USA Network, Nickelodeon, TBS, and Lifetime Television, which have been in existence for decades.[38]

44. The NFL Network's price of carriage, as measured by the license-to-advertising revenue ratio or as license revenue as percent of total net revenue, makes it

[35] Comcast Ex. 152; Comcast Ex. 137.
[36] Comcast Ex. 153. The SNL Kagan 2007 average license fees for Versus and the Golf Channel are generally consistent with license fees in the Versus and the Golf Channel affiliation agreements. For example, DIRECTV's license fee for the Golf Channel in 2007 was [redacted] per month per subscriber if distribution exceeded [redacted] subscribers (Comcast Ex. 154); and EchoStar's 2007 license fee for Versus was [redacted] per month per subscriber in 2007 (Comcast Ex. 155).
[37] This excludes RSNs, which tend to have higher license fees per subscriber than national networks.
[38] Comcast Ex. 153.

one of the most expensive (if not the most expensive) cable networks with advertising revenue. (See Table B above.) The license-to-advertising revenue ratio is a gauge of the network's average license fee for a given level of viewer interest (as quantified by the network's advertising revenue). Based on these measures, the NFL Network is even more expensive than ESPN, which is the premier national sports cable network. In 2007, the NFL Network's license-to-advertising revenue ratio was 7.41.[39] For ESPN and ESPN2, the 2007 license-to-advertising revenue ratios were 3.18 and 2.60, respectively.[40] In contrast, for the Golf Channel and Versus, the 2007 license-to-advertising revenue ratios were 1.81 and 3.19, respectively.[41]

45. In his analysis of the discrimination claims, Dr. Singer does not conduct any comparison of the carriage costs of the NFL Network to the carriage costs of Versus and the Golf Channel. A simple example can show how Dr. Singer's failure to account for cost can lead an analyst astray. Take two assets: Asset A generates $100 of value for the owner while Asset B generates $125 of value. If we ignore the cost of purchasing the assets, one would assume that an investor would want Asset B. But if we now introduce the concept of costs, Asset A may be more attractive. Let's assume that Asset A costs $25 to buy, while Asset B costs $75 to buy. Asset A generates $75 of *net* value, while Asset B generates $50 of *net* value. Asset A is clearly the more attractive asset, once costs are reflected in the analysis. By ignoring the cost of carriage, Dr. Singer has not analyzed or considered the net value of the various programming options, which means

[39] *Id.*
[40] *Id.*
[41] *Id.*

he cannot draw any reliable conclusions about whether Comcast has discriminated against the NFL Network in favor of its own programming.

46. Dr. Singer does consider one aspect of network carriage costs. He asserts that Comcast "would not be disadvantaged vis-à-vis its in-region MVPD rivals if it carried NFL Network on its Expanded Basic tier" because "[any] *inflationary* pressure caused by carriage of NFL Network programming on the Expanded Basic tier would be felt at least symmetrically by Comcast's in-region rivals."[42] Dr. Singer erroneously assumes that MVPDs compete only on price and not by offering differentiated products and services, for example, by offering a somewhat different programming lineup. Such differentiation is a key component of competition. Yet Dr. Singer seems to argue that the only non-discriminatory conduct for Comcast is to carry the NFL Network on a highly penetrated tier, regardless of the carriage price, as long as Comcast's in-region rivals are carrying the NFL Network on similar tiers because "inflationary" pressure (*i.e.*, the ability of the MVPDs to raise prices charged to consumers) are "symmetrical" among the rival MVPDs. But such a discrimination standard, if adopted by the Commission, would discourage price and carriage competition among MVPDs. Since such competition accrues to the benefit of consumers, the Commission would harm consumers by adopting that approach.

47. Dr. Singer asserts that his "market penetration test" demonstrates market-wide acceptance of the NFL Network's carriage prices.[43] Dr. Singer argues that the NFL Network's carriage prices are not "too expensive" based on the fact that some large

[42] Comcast Ex. 85 ¶ 31 (emphasis added) (citations omitted).
[43] Comcast Ex. 65 at 30:19-31:10.

MVPDs carry the NFL Network.[44] Dr. Singer argues that there is market-wide acceptance of the NFL Network's carriage prices because "54 percent of a subscriber-rated basis [sic] of MVPDs carry [the NFL Network] at those prices."[45] Dr. Singer further claims that the NFL Network passes his "market penetration test" because "54 percent is a big number."[46] This claim is extremely misleading. To calculate his 54 percent number, Dr. Singer added the *total* number of DIRECTV, Dish Network, and Cox subscribers (using the subscriber numbers from the Commission's Thirteenth Annual Report, which are based on 2006 data) and divided that number by total number of subscribers served by top 10 MVPDs other than Comcast (also using the 2006 data in Commission's Thirteenth Annual Report).[47] Of the top 10 MVPDs in 2006, other than Comcast, only DIRECTV, Dish Network, and Cox currently carry the NFL Network.[48] Note that even Dr. Singer's own calculations show that the majority of large MVPDs do not carry the NFL Network. However, if Dr. Singer applied a similar calculation for the Golf Channel and Versus (as the one he used to obtain the 54 percent number for the NFL Network), he would find that *100 percent* of the top 10 MVPDs carry the Golf Channel and Versus.

[44] Comcast Ex. 65 at 33:5-14 ("So if you say to me by Gerbrandt's measure they are too expensive, or by Orszag's measure they are too expensive, then I just ask myself then why in the hell are all these MVPDs out there carrying them at these prices. I can't accept that. If the price is wrong no one should take them. Everyone should tell the NFL to go to hell, but we have 54 percent of a subscriber-rated basis of MVPDs carry them at those prices.")

[45] Comcast Ex. 65 at 33:13-14.

[46] Comcast Ex. 65 at 32:21-23.

[47] Comcast Ex. 65 at 243:16-244:2; Comcast Ex. 26 at 146.

[48] Note that the top 10 MVPDs in 2006 include Adelphia, which was subsequently acquired jointly by Comcast and Time Warner.

48. It is important to note that Dr. Singer's 54 percent number is based on *total* subscribers served by DIRECTV, Dish Network, and Cox, not the number of *NFL Network* subscribers of these MVPDs. Cox does not carry the NFL Network on a highly penetrated tier,[49] and Dish Network in February 2008 moved the NFL Network from its most highly penetrated tier, AT100, to a less penetrated tier, AT200. Thus, Dr. Singer's 54 percent number is a misleading indicator of MVPDs' willingness to carry the NFL Network on highly penetrated tiers because, among other reasons, it is based on the total number of DIRECTV, Dish Network, and Cox subscribers, even though Cox and Dish Network do not carry the NFL Network on their highest penetrated tiers.

49. Furthermore, Dr. Singer's 54 percent number is largely a function of the fact that DIRECTV accounts for such a large fraction of total subscribers of the top 10 MVPDs other than Comcast. As I discussed earlier, DIRECTV has a business relationship with the NFL that extends far beyond the carriage of the NFL Network. DIRECTV is the exclusive distributor of the NFL Sunday Ticket package of out-of-market games, and DIRECTV's NFL Network affiliation agreement is not independent of its NFL Sunday Ticket distribution agreement. The NFL Network and the NFL Sunday Ticket distribution agreements are interconnected in such a way that they are effectively a bundled agreement. [redacted]"[50] Thus, the DIRECTV license fee for the NFL Network is not a true market price.[51] Therefore, it

[49] *See* Table A above.
[50] Comcast Ex. 156.
[51] Dr. Singer stated in his deposition that the portion of the NFL Network license fee paid by DIRECTV to the NFL that is allocated is a "very, very teeny percentage of the total [Net Effective Rate]" and called it a "teeny, teeny, teeny, tiny share the NFL would have

would be inappropriate to use DIRECTV'S carriage of the NFL Network as a benchmark of market acceptance of the NFL Network's carriage price.

50. Dr. Singer's "market penetration test" also ignores the fact that the vast majority of MVPDs do not carry the NFL Network on highly penetrated tiers. Dr. Singer claims in his Report that over 200 MVPDs carry the NFL Network on highly penetrated tiers. However, in the U.S. there are more than 1,200 MVPDs.[52] Note that of the approximately 56 million MVPD subscribers not served by either Comcast or DIRECTV, only about [redacted] of the subscribers receive the NFL Network, and fewer than [redacted] of the subscribers receive the NFL Network on highly penetrated tiers.[53] These numbers suggest that there is no market-wide acceptance of the NFL Network's carriage prices by MVPDs for carriage of the network on highly penetrated tiers. These results are also consistent with other evidence that indicates that the NFL Network's relatively high carriage price was the reason why many MVPDs chose not to carry the NFL Network or chose to carry the network on less than highly penetrated tiers.[54] Thus, there is no reliable basis for Dr. Singer's claim that his "market penetration test" demonstrates market-wide acceptance of the NFL Network's carriage prices.

D. Carriage terms

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some discretion in how it allocates the money." Comcast Ex. 65 at 262:17-23. Since the surcharge paid by DIRECTV is [redacted] per subscriber. The overall net effective rate that DIRECTV paid in 2008 was [redacted] per subscriber. Comcast Ex. 85. Thus, the allocated portion of the net effective rate is [redacted] ([redacted]). It is not clear to me how Dr. Singer can claim that this represents a "very, very teeny percentage of the total [Net Effective Rate]" or "teeny, teeny, teeny, tiny share the NFL would have some discretion in how it allocates the money."

[52] *See* Comcast Ex. 157.

[53] *See* Comcast Ex. 137; and *infra* notes 119 and 120. These calculations assume that Dish Network, Cox, Insight, and RCN do not carry the NFL Network on highly penetrated tiers.

[54] *See* paragraphs 32-33 above.

51. As noted above, price is an important element of the value proposition offered by a network such as the NFL Network. But there are other important components of an MVPD's assessment of any cable network. These factors include the protection against future price increases; presence of other programming alternatives; whether competing MVPDs are carrying the network; the opportunity costs of carriage (*e.g.*, any bandwidth constraints); the presence of a most favored nation (MFN) clause; advertising availabilities offered by the programmer; required levels of advertising by the MVPD; the term of the contract; the video-on-demand provisions; the Internet streaming provisions; the price escalators in the contract; exclusivity of content; and the flexibility offered to the MVPD in terms of the MVPD's tiering decisions. Neither the NFL's Carriage Complaint nor Dr. Singer has addressed these important factors in their claims of discrimination. Without evaluating the carriage terms and other elements of the value proposition offered by the NFL Network to Comcast, it would be impossible to draw any reliable conclusions, from an economic perspective, about the likelihood of discrimination in Comcast's carriage of the NFL Network on the Sports Tier.

52. An example may help to illuminate the flaw in ignoring other carriage terms in considering the NFL Network's discrimination claim. Let us suppose that two independent programming networks offered similar valued programming to Comcast and displayed similar content. Let us also assume that programming network A was seeking a monthly license fee of $0.25 per subscriber, while programming network B was seeking a per-subscriber license fee of $0.20. But programming network A was offering advertising availabilities worth $0.07 per subscriber per month, while programming network B was not offering any advertising availabilities. If one were to ignore other

carriage terms, one would believe that Comcast would carry network B since its price is $0.20. But factoring in the value of advertising availabilities, Comcast is better off carrying network A (net price of $0.18 per subscriber per month versus a net price for network B of $0.20 per subscriber per month). Nowhere in Dr. Singer's Report does he compare the carriage terms of the NFL Network to those of Versus and the Golf Channel, so it is unclear how he can draw any reliable conclusions about whether or not Comcast discriminated against the NFL Network in favor of Versus and the Golf Channel.

E. Value of the NFL Network programming to Comcast's subscribers

53. To examine whether carrying the NFL Network on the Sports Tier represents a non-discriminatory and reasonable response by Comcast to the NFL Network's pricing, one needs to also assess the costs and benefits to Comcast of carrying the NFL Network on various tiers (ignoring any hypothetical effect that carriage of the NFL Network may have on the profitability of the Golf Channel and Versus). Putting aside all of the other cost factors described above, the cost of Comcast's carriage of the NFL Network can be effectively simplified to be the product of two factors: (1) the price per Comcast subscriber receiving the NFL Network and (2) the number of Comcast subscribers receiving the NFL Network.[55] Thus, carrying the NFL Network on a more highly penetrated tier increases the costs of carriage for Comcast since it increases the number of Comcast subscribers receiving the NFL Network.[56] Likewise, distribution of

[55] As noted above, there are other elements that affect the cost of carriage (*e.g.*, channel placement; the length of the contract; escalators in the contract; etc.).

[56] The license fee for carriage rights may include a fixed component that would not increase as a network is distributed on more highly penetrated tiers. But if the license fee also includes an incremental component (*i.e.*, a fee to be paid for every subscriber receiving the network), then expanding the network's distribution would also increase carriage costs. Subject to a cap in the parties' carriage agreement, Comcast agreed to a

the NFL Network on a Sports Tier lowers Comcast's cost of carriage. Comcast benefits from carrying the NFL Network to the extent that carriage helps it attract and retain a greater number of subscribers or allows it to raise retail prices to reflect the value of the network's programming to subscribers.[57]

54. Although some Comcast subscribers (and those of other MVPDs) may greatly value the NFL Network programming, many others likely assign very little value to it.[58] The eight live regular-season NFL games carried by the NFL Network are also carried on a broadcast network affiliated TV station in the teams' local markets. Thus, the NFL Network's carriage of those games would likely be of particular interest to those viewers interested in games between teams not from the viewer's local market.[59] Because DIRECTV has offered on an exclusive basis a large package of NFL out-of-market games as part of its Sunday Ticket package for more than a decade[60] and offers the NFL Network on a highly penetrated tier, viewers with a particular interest in out-of-

$0.55 per subscriber per month surcharge based on the express understanding that it had the right to distribute the NFL Network on a less penetrated tier. *See* Comcast Ex. 152. Thus, distributing the NFL Network on more highly penetrated tiers (such as analog expanded basic) would significantly increase Comcast's license fees for the NFL Network, relative to distributing the NFL Network on the Sports Tier.

[57] Mediacom – a non-vertically integrated cable company, so it cannot be motivated to generate profits for an upstream programming arm – concluded that its decision to not carry the NFL Network was "absolutely the correct decision." Comcast Ex. 147.

[58] As Bright House states on its website, "NFLN appeals to only a small segment of our customers on a year-round basis and it is highly priced."
See Comcast Ex. 141. *See, also,* the comments of a Mediacom executive stating that the NFL Network appealed to a "very small percentage of our consumers." Comcast Ex. 147.

[59] In our previous declaration, Dr. Ezrielev and I referred to the games shown on the NFL Network as "out-of-market" games. In fact, they are not "out-of-market" games because the NFL Network telecasts them in the teams' home markets. But because the games are also available on free broadcast television in the teams' own markets, the NFL Network's telecasts into those markets add little, if any, value to viewers in those markets.

[60] *See* Comcast Ex. 158.

market live NFL games, including many die-hard NFL fans, are disproportionately likely to be subscribers of DIRECTV.[61] Therefore, the value to Comcast of carrying the NFL Network on its more highly penetrated tiers is reduced to the extent that many, if not most, of those who choose to subscribe to Comcast may not have a strong interest in obtaining access to out-of-market live regular-season NFL games beyond those games already available on Sunday afternoons and evenings on broadcast television and on Monday night on ESPN. Furthermore, if a viewer follows a particular NFL team, there is a relatively small chance that the eight regular-season games carried by the NFL Network will include the team's games more frequently than once per year.[62] Thus, the fan's desire to watch live out-of-market games of a specific team is unlikely to be satisfied by the NFL Network's programming.

55. If many, if not most, fans of out-of-market football games are subscribers of DIRECTV, adding the NFL Network and its offering of eight live regular-season games per year to a more highly penetrated tier would not likely increase Comcast's subscriber retention rate by a significant amount. Furthermore, it is unlikely that adding the NFL Network to a more highly penetrated tier would induce a significant number of viewers with a particular interest in out-of-market live NFL games to switch from DIRECTV to Comcast because (i) a very large number of out-of-market regular-season NFL games is offered on NFL Sunday Ticket, which is only available from DIRECTV; and (ii) DIRECTV already offers the NFL Network on its most highly penetrated tier.

[61] This view is consistent with the NFL's own assessment of its competitive position. *See, e.g.*, Comcast Ex. 159.

[62] There are 32 NFL teams, and the eight live regular-season NFL games carried by the NFL Network can show at most 16 teams. This means that a team, on average, is likely to appear on a live game on the NFL Network once every two years. *See* Comcast Ex. 160; Comcast Ex. 119.

Carriage of the NFL Network on Comcast's highly penetrated tiers may also not increase significantly the NFL Network's viewership or ratings if the most ardent followers of the NFL are DIRECTV subscribers, subscribers of another MVPD, or subscribers who already receive the NFL Network via Comcast's Sports Tier.[63]

56. There is no dispute that live NFL games carried by the NFL Network have appeal among sports fans, including, to an unknown extent, among Comcast subscribers. However, the relevant questions for the analysis of the NFL's discrimination claims are whether the demand for NFL Network's programming by Comcast's subscribers justifies the carriage terms sought and whether the demand can be more economically met, given the carriage terms sought, by carrying the NFL Network on Comcast's Sports Tier. Neither the NFL nor Dr. Singer has adequately addressed these questions, and the available evidence does not contradict the view that carriage of the NFL Network on the Sports Tier is a reasonable response to the carriage terms sought by the network.

57. Carrying the NFL Network on the Sports Tier enables Comcast to provide the NFL Network content to the subset of subscribers with a particular interest in sports programming (including NFL programming) at a cost to Comcast that is significantly smaller than the cost of carrying the NFL Network on more highly penetrated tiers. Thus, because there is no evidence that carriage of the NFL Network on highly penetrated tiers would generate significant value for Comcast,[64] there is no reasonable

[63] It is worth noting that internal NFL Network documents show that the network's ratings and advertising revenues increased between 2006 and 2007 even as its total number of subscribers decreased as a result of Comcast's placement of the NFL Network on the Sports Tier. *See* Comcast Ex. 161.

[64] Comcast executive Stephen Burke testified that Comcast did not lose substantial revenue as a result Comcast's decision to carry the NFL Network on the Sports Tier.

basis for concluding, based on the NFL's allegations, that Comcast has discriminated against the NFL Network in favor of Comcast-affiliated programming networks by carrying the NFL Network on its Sports Tier.[65]

F. Relationship between ratings and carriage

58. The central plank in Dr. Singer's analysis of the discrimination claims is the assertion that the NFL Network programming is more highly rated (*i.e.*, has higher Nielsen ratings) than either Versus or the Golf Channel programming.[66] Dr. Singer concludes that Comcast discriminates against the NFL Network by carrying the Golf Channel and Versus on a more highly penetrated tier than the NFL Network, despite the higher ratings for the NFL Network. Dr. Singer's sole reliance on ratings data in reaching his conclusions regarding the discrimination claims is misguided, as I explain below.

59. Even if an apples-to-apples comparison showed that the NFL Network had higher ratings than Versus and the Golf Channel, the NFL and Dr. Singer ignore the corresponding significant differences in the carriage terms between the NFL Network, Versus, and the Golf Channel. Ratings alone, in the absence of an analysis of carriage terms and the value proposition offered by a network, are meaningless for the analysis of

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Comcast Ex. 99 at 109:5-9. Mr. Burke's experience would be consistent with the experience of Mediacom cited above.

[65] The NFL's carriage complaint does not claim that Comcast's decision to place the NFL Network on its Sports Tier is inconsistent with a rational response to the NFL Network's price of carriage. In fact, the carriage complaint suggests that distributing the NFL Network on the Sports Tier is profitable for Comcast even without considering any effects on Versus or the Golf Channel. *See* also Comcast Ex. 19 ¶ 62. Such an assertion is consistent with the view that carriage of the NFL Network on the Sports Tier was not discriminatory but was instead a rational business decision given the NFL Network's license fees (and apart from any consideration related to Comcast's interest in Versus and the Golf Channel).

[66] Comcast Ex. 85 ¶¶ 23-26.

the alleged discrimination.[67] Ratings do not capture the value of carriage to the MVPD because ratings measure only the viewership of a program, and not the intensity of viewership or the viewers' loyalty to the network carrying the programming.[68] Ratings provide a good gauge of the value of advertising on a program because the value to advertisers is a function of viewership and the demographics of the viewership. However, the value of carriage to an MVPD is more a function of viewers' loyalty to the network or the network's content. If carrying a network enables an MVPD to grow its subscribership (or alternatively reduce losses to competitors), the MVPD may be willing to carry the network on highly penetrated tiers and pay large license fees regardless of the network's average ratings. Conversely, if a network with relatively high average ratings also has relatively low intensity of viewership (or viewer loyalty), MVPDs may not be willing to pay a relatively high carriage prices for the network.

60. Again, an example may help to highlight this point. Let's assume that Channel A has higher ratings than Channel B. But let's also suppose that only a very small percentage of Channel A's viewers would disconnect from Comcast if it dropped that channel, but all of Channel B's viewers would disconnect if Comcast dropped the channel. If it dropped both channels, Comcast would lose many fewer subscribers as a result of dropping Channel A than as a result of dropping Channel B. From Comcast's perspective, Comcast should be willing to pay a higher license fee for Channel B than Channel A (since Channel B is more effective at helping Comcast attract or retain subscribers) – and ratings data would not reveal that.

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[67] *See* Comcast Ex. 98 at 26:16-19 (the relationship of a network's ratings and its value to MVPDs is "not direct" and "very complicated"); *see also* Comcast Ex. 99 at 113:17 ("the highest ratings don't mean the highest fee").
[68] *See* Comcast Ex. 138 ¶ 17.

61. The fact that ratings do not measure the intensity of viewership also helps to explain the absence of a direct relationship between ratings and license fees for networks. For example, although in 2007 ESPN and the Hallmark Channel had similar average 24-hour ratings, ESPN's average license fee was about *100* times larger than that of the Hallmark Channel.[69] Moreover, in 2007, ESPN's household penetration rate was also significantly higher than that of the Hallmark Channel.[70]

62. Another flaw in using the NFL Networks ratings data to infer discrimination in Comcast's carriage of the NFL Network is that the NFL Network ratings do not measure the viewership by Comcast's subscribers, but rather that of NFL Network viewers overall.[71] It is not appropriate, from an economic perspective, to infer the level of interest in the NFL Network's programming by Comcast's subscribers who do not already receive the NFL Network based on the ratings for the NFL Network as a whole. Because DIRECTV likely accounts for a significant percentage of the NFL Network's ratings and DIRECTV subscribers are more likely to be devoted NFL fans because of DIRECTV's exclusive offering of Sunday Ticket, the historic NFL Network ratings are not necessarily informative about the interest in the NFL Network by Comcast subscribers who do not already receive the NFL Network on the Sports Tier.[72]

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[69] Comcast Ex. 153.

[70] *Id.*

[71] Dr. Singer does not present any evidence on the level of interest in the NFL Network's programming among Comcast subscribers. In fact, internal NFL Network documents show that the network's ratings and advertising revenues increased between 2006 and 2007 even as its total number of subscribers decreased as a result of Comcast's placement of the NFL Network on the Sports Tier. *See* Comcast Ex. 161.

[72] For the same reason, the NFL Network ratings among Comcast Sports Tier subscribers are not necessarily informative about the interest in the NFL Network by all other Comcast subscribers.

63. There are a number of additional ways to show why the NFL's and Dr. Singer's reliance on ratings data is misguided. For example, GolTV has similar ratings to the NFL Network, but a much lower penetration rate across all MVPDs.[73] Alternatively, RSNs tend to have high license fees but relatively low ratings. Examination of data on national sports cable network ratings and MVPD household penetration levels for the networks indicate no strict relationship between ratings and MVPD household penetration. Such data for 2007 are shown in Table C below. Note that there are several instances in the table where a sports network with higher ratings has fewer subscribers than another sports network with lower ratings. For example, GolTV, Fox Sports en Espanol, and the NFL Network have significantly higher ratings than do ESPNEWS and ESPN Classic but much lower levels of MVPD household penetration rates. Also, note that SPEED has significantly higher ratings than does ESPN Classic but a comparable level of MVPD household penetration. This evidence suggests that carriage and tiering decisions for networks are not strictly functions of networks' ratings. Thus, because viewers' willingness to pay for programming and other relevant factors affect MVPDs' tiering decisions, focusing only on ratings for the three networks yields an insufficient basis for the analysis of discrimination claims.

[73] *See* Table C below.

Table C. MVPD Household Penetration Rate and Ratings National Sports Networks in 2007

[redacted]

64. Moreover, Dr. Singer's analysis of ratings ignores the effect of carriage prices on MVPDs' carriage decisions. Dr. Singer simply asserts that, because the NFL Network is more "popular" than either Versus or the Golf Channel,[74] "efficiency considerations" imply that Comcast's carriage of the NFL Network must be at least as great as Comcast's carriage of Versus or the Golf Channel, regardless of the license fee or carriage terms sought by the NFL Network.[75] Dr. Singer's approach is like that of an advertiser deciding to advertise during the Super Bowl solely because it has the highest

[74] Comcast Ex. 85 ¶¶ 24-28.
[75] *Id.* at ¶ 24.

ratings, while ignoring the cost of the advertising time. Such an approach does not make any economic sense.

G. *History of carriage*

65. The available evidence suggests that there is a strong relationship between a network's year of launch and its carriage by MVPDs.[76] Figure 1 above shows that more recently launched sports networks tend to have significantly lower MVPD household penetration rates than do networks launched prior to 2000. One reason that more recently launched networks tend to have lower penetration rates is that it takes time for a network to build up distribution and viewership through investment and competition. Another reason why recently launched networks may have lower penetration rates is greater availability of analog channel capacity for many systems in the earlier periods.

66. Both the Golf Channel and Versus have relatively long histories of increased distribution with Comcast and other MVPDs, and each channel has had more time to invest in establishing successful relationships with MVPDs and to compete in the marketplace to build up a loyal fan base among subscribers. Unlike the Golf Channel or Versus, the NFL Network has a relatively short history with Comcast and other MVPDs. Moreover, the NFL Network was launched at a very different time in the evolution of the MVPD sector.[77] By 2003, when the NFL Network was launched, many cable systems had limited analog channel capacity, and the advent of new product offerings, such as high-speed Internet access, video-on-demand offerings, and digital phone services,

[76] A recent report by the Commission found that there is significant positive relationship between network age and penetration rate. Comcast Ex. 162.

[77] The Golf Channel and Outdoor Life Network (now Versus) were both launched in 1995, whereas the NFL Network was launched in 2003. *See* Comcast Ex. 153.

further increased competition for bandwidth capacity. As a result, the NFL Network faced a quite different marketplace than did the Golf Channel and Versus during their launches. If the NFL Network had been launched around the same time as the Golf Channel and Versus (then Outdoor Life Network), during the mid-1990's, the NFL Network would likely have wider distribution today (although the network still could have priced itself out of the market for wide distribution by demanding too high a price). The difference in channel capacity constraints at the time of the relevant carriage decision could reasonably affect the carriage decisions of MVPDs. Thus, the NFL Network's lower MVPD household penetration rate relative to the Golf Channel and Versus is consistent with its more recent year of launch.

67. In addition, the NFL Network has substantially higher penetration rates and carriage prices than other sports networks launched around the same period as the NFL Network's year of launch. In 2003, the NFL Network was launched along with FUEL, CBS College Sports (at the time, named College Sports TV), GolTV, Tennis Channel, and TyC Sports International. The NFL Network's 2007 MVPD household penetration rate of 43 percent was significantly higher than those of FUEL (26 percent), CBS College Sports (22 percent), GolTV (13 percent), Tennis Channel (10 percent), and TyC Sports International (one percent).[78] The NFL Network's penetration rate is also significantly higher than those of a number of networks launched before 2003. NBA TV, launched in 1999, had a 2007 MVPD household penetration rate of 14 percent, and Fox Soccer Channel, launched in 1997, had a 2007 MVPD household penetration rate of 37

[78] Comcast Ex. 153. Even at its current subscriber level, the NFL Network has a higher penetration rate than these other networks.

percent.[79] Thus, the available evidence on network penetration rates and launch years does not support the notion that the NFL Network's penetration rate is below the level of its peers based on its year of launch.

III. THE EFFECT OF CARRIAGE ON ABILITY TO COMPETE

68. In his Report, Dr. Singer claims that Comcast's decision to carry the NFL Network on the Sports Tier has restrained unreasonably the NFL Network's ability to compete fairly and has harmed competition among sports cable networks. These claims have no valid basis. There is no reason why the NFL Network could not obtain broader distribution by offering Comcast or any other MVPD a lower license fee and/or better carriage terms.[80] Therefore, the NFL Network clearly can compete fairly by just adjusting its price and other terms of carriage. Nonetheless, this section examines in detail why the available evidence shows that Comcast's carriage of the NFL Network did not significantly affect the NFL Network's ability to compete.

A. Competition among sports networks

69. Under standard economics theory, Comcast could only plausibly have an incentive to discriminate against the NFL Network in favor of its affiliated networks, the Golf Channel and Versus, if the Golf Channel or Versus faced significant competition for

[79] *Id.*

[80] Dr. Singer states that "Comcast's foreclosure of NFL Network from Comcast's broadly penetrated tiers... is presumptively anticompetitive even under a traditional share-based approach to analyzing foreclosure." Comcast Ex. 85 ¶ 46. But Comcast is not foreclosing the NFL Network from a more highly penetrated tier. Comcast, like all of the other major cable companies, has made a business decision that the price of the NFL Network is too high for distribution on a highly penetrated tier. Since a license fee much lower than the NFL Network's current license fee would be profitable for the NFL Network, this is not antitrust foreclosure; it is a business dispute about price and other carriage terms.

viewers and advertisers from the NFL Network and no other network (or few other networks). If the prices charged by the Golf Channel or Versus are not significantly constrained by the NFL Network alone, the Golf Channel or Versus would obtain no benefit from reducing the NFL Network's ability to compete and Comcast would not have any motive to restrain the NFL Network's ability to compete, and the alleged discrimination would not result in any competitive harm.

70. Dr. Singer's Report does not offer reliable evidence to indicate that the Golf Channel or Versus faced significant competition from the NFL Network. The NFL Network, the Golf Channel and Versus all carry different programming content (as discussed above), and it is far from obvious that the NFL Network alone imposes a significant competitive constraint on the carriage prices charged by the Golf Channel and Versus.

71. Moreover, if both the Golf Channel and Versus faced significant competition from all sports programming, including the programming from the NFL Network, then it is highly unlikely that any competitive harm could have occurred. If the prices charged by the Golf Channel and Versus were already effectively constrained by sports (or even non-sports) cable networks other than the NFL Network, there would be no significant benefits to the Golf Channel and Versus from a weakening in the NFL Network's competitive position, and, consequently, Comcast's decision to carry the NFL Network on the Sports Tier would not result in any harm to competition. Today, there are at least 24 different national cable networks dedicated to sports programming, in additional to regional sports cable networks. These national sports networks are listed in Table D below. Sports programming is also shown in substantial quantities on general-

interest cable networks, such as TNT, TBS, and USA Network, as well as the major broadcast networks (e.g., ABC, CBS, FOX, and NBC), in addition to RSNs.[81]

Table D. National Sports Networks (Cable)

ESPN
ESPN2
Golf Channel
VERSUS
SPEED
ESPN Classic
ESPNEWS
NFL Network
Fox Soccer Channel
Fox College Sports
FUEL
CBS College Sports
ESPNU
NBA TV
GolTV
Tennis Channel
Big Ten Network
Fox Sports en Espanol
NHL Network
TyC Sports International
Outdoor Channel
TVG
HorseRacing TV
Mountainwest Sports Network

Source : Based on review of 2008 SNL Kagan - The Economics of Basic Cable Networks

72. Another perspective on the same point is that the Golf Channel and Versus each account for a very small share of total viewership or advertising revenue among sports cable networks. In 2007, advertising and license revenue for ESPN alone was

[81] Dr. Singer's analysis does not consider the ubiquitous presence of these sports and general-interest cable networks.

more than *eight* times greater than that of the Golf Channel and Versus combined.[82] If both the Golf Channel and Versus faced significant competition from all sports programming (including that on broadcast stations), it would be extremely unlikely that the presence or the competitive position of the NFL Network had any effect on the prices charged for advertising by the Golf Channel or Versus. On the other hand, if the Golf Channel and Versus only competed with same-sport programming (*e.g.*, golf only competed with golf, etc.), neither network would face any significant competition from the NFL Network. In either of the two cases, any weakening in the competitive position of the NFL Network would not diminish the competitive constraints facing the Golf Channel or Versus. Therefore, there is no likely scenario whereby the Golf Channel and Versus would benefit from any weakening of the NFL Network's ability to compete.[83] The alleged discrimination, even if true, would not likely result in any competitive harm.

B. Achieving a viable scale of operation

73. Dr. Singer presents the example of C-SET, an independent RSN in North Carolina, to argue that "the theory of vertical foreclosure presented above [can be] illustrated by a recent case study of discrimination…" [84] However, the economic theory of vertical foreclosure highlighted in the example has no relevance to this case. Neither the NFL nor Dr. Singer claims that the NFL Network is not profitable or below its minimum viable scale.[85]

[82] Comcast Ex. 153.
[83] Since there is no plausible claim that competition among sports networks is harmed by the NFL Network not having distribution on Comcast, Dr. Singer claim that viewers will have to pay more for sports programming is also misguided. Comcast Ex. 85 ¶ 54.
[84] Comcast Ex. 85 ¶ 37.
[85] *See* Comcast Ex. 163 at 659-683 (Dennis Carlton (2001) "A General Analysis of Exclusionary Conduct and Refusal to Deal--Why Aspen and Kodak Are Misguided,"

74. And, even if the NFL Network were below its minimum viable scale (which it is not), there is no plausible claim that Comcast is to blame.[86] First, as noted above, the NFL Network has the discretion to lower its license fee and provide more favorable carriage terms to get wider distribution from MVPDs, such as Bright House, Suddenlink, and Time Warner. Second, Comcast currently serves 24.4 million out of approximately 97.7 million MVPD subscribers in the U.S., or roughly one quarter of potential distribution.[87] Although Comcast is the largest MVPD in the U.S., there are vast areas of the U.S. in which Comcast does not have any presence. Throughout his Report, Dr. Singer appears to blame Comcast for the NFL Network's penetration rate, although the gap between the number of Golf Channel and Versus subscribers and the number of NFL Network subscribers cannot be explained by Comcast's carriage decisions alone. Therefore, there is no valid basis for claiming that the NFL Network could not possibly achieve a viable scale of operation without being distributed on Comcast's most highly penetrated tiers.

75. Finally, Dr. Singer wrote in another paper that "A local downstream access provider – whether it is a cable television operator or a cable modem provider – lacks the ability to foreclose an upstream content provider that generates content with

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Antitrust Law Journal 68; Comcast Ex. 164 at 837-859 (Michael Whinston (1990) "Tying, Foreclosure, and Exclusion," *American Economic Review* 80 ("Whinston")). These articles discuss how foreclosure can occur if rivals are forced to operate below minimum viable scale.

[86] It is interesting to note that Comcast actually assisted the NFL Network in growing its scale by agreeing to carry the network in 2004, which made Comcast one of the earliest major MVPDs to carry the NFL Network. *See* Comcast Ex. 165.

[87] *See* Comcast Ex. 166; Comcast Ex. 153.

nationwide appeal."[88] Dr. Singer and his co-author continue to argue that vertical foreclosure theories are inapplicable in the context where content "appeals to all U.S. residents, not just the residents of a particular locality."[89] Since it is indisputable that NFL football possesses nationwide appeal, unless Dr. Singer erroneously believes that Comcast is a nationwide MVPD service provider, it is unclear how Dr. Singer can now claim that anticompetitive foreclosure is possible when he previously claimed that it was not possible; Comcast falls well short of nationwide MVPD service coverage.[90] Therefore, for this and other reasons discussed above, Dr. Singer fails to demonstrate any appropriate basis for his conclusion of vertical foreclosure.

C. Ability to constrain prices

76. To demonstrate that Comcast's carriage of the NFL Network restrained the network's ability to compete, one must also establish that Comcast's carriage of the network has significantly weakened the NFL Network's ability to constrain prices charged by Comcast-affiliated sports networks. It is not sufficient to claim that the NFL Network has lost revenue. That is, if the difference between carriage on a more highly penetrated Comcast tier and Comcast's Sports Tier simply moves the NFL Network from highly profitable to somewhat less highly profitable, the NFL Network's ability to compete will not be significantly affected. There is also no valid basis for concluding

[88] *See* Comcast Ex. 167 at 367 (Hal J. Singer and J. Gregory Sidak (2007) "Vertical Foreclosure in Video Programming Markets: Implications for Cable Operators," *Review of Network Economics* 6).
[89] *Id.* at 368.
[90] As of December 31, 2008, there were approximately 50.6 million homes passed by Comcast. *See* Comcast Ex. 168. But the total number of MVPD subscribers in the U.S. is approximately 98 million. *See* Comcast Ex. 153.